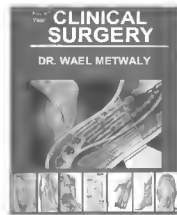


REVISION 15

ORTHOPAEDICS

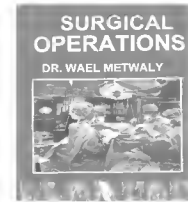
BY DR. WAEL METWALY

★ Clinical



.....

★ Operative



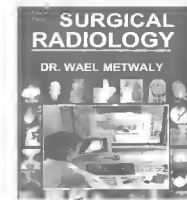
- Management of # Clavicle
- Management of # Neck Femur
- Management of # Shaft Femur

★ Jars



- T.B spine
- Osteoclastoma
- Osteosarcoma
- Parosteal sarcoma
- Chondrosarcoma

★ X-rays



➤ Plain X-ray:

- # of upper limb
- # of lower limb
- # spine
- L.D.P
- Chronic Osteomyelitis
- Pott's disease
- Hyperparathyroidism
- Exostosis
- Osteoclastoma
- Osteosarcoma
- Chondrosarcoma
- Bone Metastasis



Injuries of the upper limb

	# clavicle	Shoulder dislocation	# neck humerus	# shaft humerus	Supra-condylar #	# shaft radius & ulna	Colle's fracture
commonest	middle 1/3	Anterior	Old age		children		Old women's #
C/P *	1- Loss of function: mother suckling her baby. 2- <u>Deformity</u> : medial end pulled upward & lateral end falls downward and medially.	1- Loss of function. 2- Swelling. 3- <u>Deformity</u> : abduction, change in length, flattening.	H E 1- Loss of function. 2- Swelling. 3- <u>Deformity</u> : abduction or adduction type (usually impacted)	L P S <u>Deformity</u> : - abduction type: # is above deltoid insertion or - adduction type: # is below deltoid insertion	D A T <u>Deformity</u> : extension type (99%) or flexion type (1%).	<u>Deformity</u> : - Above insertion of P.T.: proximal part is in supination. - Below insertion of P.T.: proximal part is in mid-pronation.	<u>Deformity</u> : Typical dinner fork deformity. - Distal part: upward, backward & laterally. - Proximal part: fully pronated & adducted.
Complications:	Mal-union	Recurrence	Circumflex nerve injury	Radial nerve injury	Local complications especially: - Myositis ossificans. - Volkmann's contracture. - Cubitus varus or valgus		
Treatment	Broad arm to neck sling.	- Reduction. - Fixation: arm to chest.	- Abduction type: Fixation arm to chest. - Adduction type: triangular sling.	- Reduction. - Fixation: U-shaped plaster slab.	- Reduction. - Fixation: above elbow posterior slab. - After care: radial pulse.	- Undisplaced: above elbow cast. - displaced: external or internal fixation.	- Reduction. - Fixation: below elbow plaster cast. - After care: active mobilization of fingers

Summary for treatment:

Sling	Arm to chest	Slab	Cast
* # clavicle.	* Anterior shoulder dislocation.	* # shaft humerus.	* # shaft radius & ulna.
* # neck humerus (adducted type)	* # neck humerus (abducted type)	* Supra-condylar # humerus.	* Colle's #.

Injuries of the lower limb

Types & Aetiology	# pelvis	Posterior hip dislocation	# neck femur	# shaft femur	# shaft tibia & fibula
T/P	<ul style="list-style-type: none"> Solitary #: - Avulsion #, isolated # of pelvic ring. Disruption of p. ring: - Double break ant. (butter-fly), combined ant. & posterior (open book). 	<ul style="list-style-type: none"> Congenital. Traumatic: posterior (the commonest), anterior, central. Pathological. 	<ul style="list-style-type: none"> Intra-capular: 1) sub-capital, 2) trans-cervical, 3) basal neck Extra-capular: 4) per-trochanteric; 5) inter-trochanteric. 	Direct or Indirect trauma	Direct or Indirect trauma
	1- Loss of function: pt can't lift his leg. 2- Deformity: shortening & external rotation.	H E 1- Loss of function: painful & limited move. 2- Swelling. 3- Deformity: flexion, add & int. rotatn. [X-ray: head is outside acetabulum, interrupted Shenton's line.]	L P S D A T 1- Loss of function: no movement. 2- Swelling. 3- Deformity: abduction type 80% (usually impacted) or adduction type 20%.	Deformity: 	Circulation of foot should be examined.
	Complications: - Static nerve injury. - Mal-union (indication for c/s in females)	GENERAL + - Static nerve injury. - # posterior lip of acetabulum.	Local complications especially: - Static nerve injury. - Non-union: (due to...) - Mal-union (coxa vara)	- Myositis ossificans. - popliteal vessels injury. - Volkman's contracture. - Mal-union (shortening).	Cross union
Treatment	* Correction of shock + tit of visceral injury. * # stable & no displacement: rest + binder. - disruption of s. papsis: reduction + hip spica (6 w.) - upward displacement: skeletal traction on tibia. - double #: external fixator. * After care: movement on crutches.	- Reduction: flexion, abd. & ext. rotation. - Fixation: hip spica (6w.)	* Intra-capular #: - if young: open reduction+ fixation (canulated screws) - if old: hemiarthroplasty or THR. * Extra-capular #: - if fit: open reduction+ fixation (dynamic hip screws) - if unfit: traction on Bohler splint.	* immobilization + 4 anti (antishock, antitetanic, antigas, antibiotic). + - new born: tongue depressor+ bandage to abdomen. - child <4y.: Bryant's method over gallow's splint. - child 5-15y.: skin traction on Thomas splint. - adult & old: open reduction+ fixation (intramedullary nail or plate & screws) & if failed: skeletal traction on Bohler's frame.	* Undisplaced #: above knee cast (6 w.) * Displaced #: - reduction+ below knee cast. - open reduction+ fixation by plate & screws only on tibia.

EXAMS

- A. Written Questions
- B. Explanations
- C. Cases

A. WRITTEN QUESTIONS

GENERAL PRINCIPLES

2002

- Discuss complications of **Fractures**

(12 Marks)

2004

- Discuss Methods of fixation of **Fractures**

(20 Marks) دور ثانی

2006

- Mention the complications of **Fractures**

(12 Marks)

2007

- give an account on complications of **Fractures**

(10 Marks)

2009

- Mention Methods of fixation of **Fractures**

(10 Marks) دور ثانی

INJURIES OF UPPER LIMB

2000

- Discuss C/P & Complication of **Supra-condylar # of Humerus**

(10 Marks)

2001

- Mention C/P & Complication of **Supra-condylar # of Humerus**

(7 Marks) دور ثانی

2002

- Mention C/P & Complication of **Colle's Fracture**

(10 Marks) دور ثانی

2003

- Discuss Complication of **Supra-condylar # of Humerus**
- Discuss Complication of **Supra-condylar # of Humerus**

(9 Marks) دور ثانی
(20 Marks)

2005

- Enumerate 4 complications 2ry to
Colle's fracture & Supra-condylar #

(4 Marks) دور ثانی

2006

- A 10-years- old boy presented with pain & swelling in the elbow region after car accident.

Discuss the management ?

(20 Marks)

2007

- Discuss C/P, & Management of **Supra-condylar # of Humerus** in a baby 6 years old

(20 Marks) دور ثانی

2008

- Enumerate Specific complications 2ry to
Supra-condylar # Humerus & # Clavicle (10 Marks) دور ثانی

2009

- Discuss mechanism, displacement, diagnosis & treatment of
Colle's Fracture (10 Marks)

INJURIES OF LOWER LIMB & SPINE

2004

- Discuss C/P , Complications & treatment of **Fracture Neck Femur** (25 Marks)

2005

- Enumerate 4 complications 2ry to
Fractures Pelvis , Neck & Shaft Femur (6 Marks) دور ثانی

2006

- Discuss aetiology, C/P & Complications of **Fracture Spine** (20 Marks) دور ثانی

2008

- Enumerate Specific complications 2ry to
Fracture Pelvis & Fracture Shaft Femur (10 Marks) دور ثانی

- Describe types & treatment of **Fracture Neck Femur** (10 Marks)

2009

- What are types, C/P, complications & management of **Fractures Pelvis** (10 Marks) دور ثانی

INFLAMMATIONS

2002

- Discuss Pathology, complication & diagnosis of **Chronic Non-specific Osteomyelitis** (12 Marks) دور ثانی

2003

- Discuss complications of **Pott's Disease** (9 Marks)

2005

- A 5-year-old boy complains of pain at the lower end of thigh & inability to walk. Examination reveals a temp.39 & swelling with severe tenderness at lower end of thigh .
Discuss management (20 Marks)

2008

- Describe C/P & DD of **Acute hematogenous Osteomyelitis** (10 Marks)

NEOPLASMS

1997

- Discuss **Osteoclastoma** path & C/P

(10 Marks) دور ثانی

2002

- Discuss Pathology C/P of **Osteosarcoma**
➤ Discuss **Metastatic disease** of Bone

(12 Marks)

(12 Marks)

2005

- Discuss Pathology, treatment of **Osteosarcoma**

(15 Marks) دور ثانی

2007

- Discuss Pathology & treatment of **Osteogenic sarcoma**
➤ Discuss C/P & treatment of **Ivory Osteoma**

(10 Marks)

(10 Marks)

2008

- Discuss C/P & treatment of **Osteochondroma**

(5 Marks) دور ثانی

2009

- 15 years male presented with hard small swelling in the front of the Rt. thigh. X-ray revealed elevated periosteum with sun rays appearance affecting distal femur

Discuss the management ?

(10 Marks)

B. EXPLAIN

THE FOLLOWING STATEMENTS



1. Displaced Intra-capsular # Neck Femur in elderly is usually treated by Hip Arthroplasty

(2005 – دور اول – Kasr)

- Because this # characterized by Non union due to :

- ① Avascular necrosis.
- ② Senility
- ③ Inadequate reduction

3. Patient with Ewing's Sarcoma may be diagnosed as Osteomyelitis

(2005 – دور اول – Kasr)

- Because Ewing's sarcoma characterized by Fever similar to Osteomyelitis

4. If pt. with a supra-condylar # should be kept over night for observation

(2006 – دور ثانی – Kasr)

- To avoid Volkmann's contracture which is massive infarction of the flexor compartment & So we must to observe the pulsation

5. # Shaft Femur in adult is better treated by Internal Fixation.

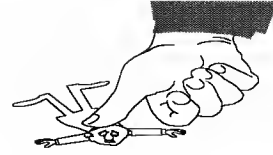
(2006 – دور ثانی – Kasr)

(2006 – دور اول – Kasr)

- Because # femur may be:

- ① Associated with soft tissue injury.
- ② Associated with soft tissue interposition.
- ③ Associated with dislocation
- ④ Pathological #
- ⑤ Unstable # or Multiple #

C. CASES



Case [88] (Acute Osteomyelitis)

A 5-year-old boy complains of pain at the lower end of thigh & inability to walk. Examination reveals a temp.39 & swelling with severe tenderness at lower end of thigh

(2005 – دور أول – Kasr)

- Discuss the Management?

Case [89] (Supra-condylar #)

A 10-years- old boy presented with pain & swelling in the elbow region after car accident.

(2006 – دور أول – Kasr)

- Describe the expected findings on clinical examination?
- Mention investigations?
- What is the most important post-operative follow up?

Case [90] (Osteosarcoma)

15 years male presented with hard small swelling in the front of the Rt. thigh. X-ray revealed elevated periosteum with sun rays appearance affecting distal femur

(2009 – دور أول – Kasr)

- What is the most likely diagnosis?
- How to confirm the diagnosis?
- Discuss the plane of diagnosis?

بسم الله
GOOD LUCK

Dr. WAEL